

REMARKS¹

In the Office action mailed December 30, 2009, claims 1-17 stand rejected. Applicant amends claims 1, 3-7 and 11 in this response. Exemplary support for the amendments can be found at paragraphs [0030], [0033], [0039] and [0051] as originally filed. Claims 1-17 are currently pending for examination with claims 1 and 11 in independent form. Applicant respectfully requests reconsideration and allowance of the application for the reasons presented below.

Claim Rejections - 35 U.S.C. § 103

Claims 1-4 and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication 2006/0193248 A1 ("*Filsfils*") in view of U.S. Patent Publication 2006/0262735 A1 ("*Guichard*").

Filsfils discloses a local fast reroute (FRR) technique that may be implemented at the edge of a computer network (see *Filsfils*, Abstract). If an edge device detects a node or link failure that prevents it from communicating with a neighboring routing domain, the edge device reroutes at least some protected data packets addressed to that domain to a backup edge device which, in turn, forwards the packets to the neighboring domain (see paragraph [0030]).

The present invention discloses a method for fast converging an end-to-end service by forwarding service according to the routing information of available tunnels selected, so as to increase convergence speed of the end-to-end service as well as the service's reliability.

By comparing the solutions disclosed in *Filsfils* and the solution recited in claim 1,

¹ As Applicant's remarks with respect to the Examiner's rejections are sufficient to overcome these rejections, Applicant's silence as to certain assertions or requirements applicable to such rejections (e.g., whether a reference constitutes prior art, motivation to combine references, etc.) is not a concession by Applicant that such assertions are accurate or such requirements have been met, and Applicant reserves the right to analyze and dispute such in the future.

Applicant respectfully traverses the rejections raised in the Office action for the following reasons.

Filsfils fails to disclose a double-ascription Provider Edge (PE) of a remote Customer Edge (CE) as recited in amended claim 1. Figure 2 of *Filsfils* shows that PE3 is a double-ascription PE of D155. *Filsfils* also discloses a CE is generally an intermediate network node, such as a router or a switch located at the edge of its network (see *Filsfils*, paragraph [0021], lines 11-13). The CE is used to connect a neighboring customer site (120, 130, or 140) to a provider network 110 (see paragraph [0023], lines 2-3). D155 is different from a CE, because D155 is merely a destination node in the customer cite 120, but it is not an edge node and cannot be used to connect a provider network (see figure 2 and paragraphs [0025] and [0026]). The D155 of *Filsfils* bears different functionality from the CE of the present invention. Hence, *Filsfils* fails to disclose a double-ascription Provider Edge (PE) of a remote Customer Edge (CE) as recited in amended claim 1.

Because *Filsfils* fails to disclose a double-ascription Provider Edge (PE) of a remote Customer Edge (CE), *Filfils* also fails to disclose the feature of “an initial node of the tunnels is the double-ascription PE of the remote CE, and a terminal node of each of the tunnels is a PE which is connected with the remote CE respectively,” as recited in claim 1.

Furthermore, according to *Filsfils*, an edge device detects a node or link failure that prevents it from communicating with devices in a neighboring domain, i.e., a PE-CE link failure (see paragraph [0042] lines 2-3, paragraph [0056] lines 5-6). However, in amended claim 1, the double-ascription PE detects the tunnel state of the tunnels connecting the double-ascription PE itself and other PEs. Thus, *Filsfils* detects the **PE-CE** link but amended claim 1 detects double-

ascription **PE-PE** links. The solution to a PE-CE failure disclosed in *Filsfils* is different from the solution recited in claim 1.

According to *Filsfils*, when the PE device 400 receives a data packet from a P or PE, the operating system 400 may locate a VPN label value 340, and then perform a label lookup operation in the label forwarding table based on the packet's VPN label. The result of the lookup operation can be used to determine a particular PE-CE link over which the received packet should be forwarded(see paragraph [0054]). That is, the label lookup operation is based on a VPN label value, and the result is to select a PE-CE link.

However, in amended claim 1, the selection is based on the state of each tunnel, and the result is to select a PE-PE tunnel. Thus, the “selecting” step in amended claim 1 is also different from the disclosure of *Filsfils*.

Guichard discloses a system and method for separately distributing edge-device labels and routing information across routing areas of a computer network (see *Guichard*, Abstract). *Guichard* does not, however, cure the deficiencies of *Filsfils*. Thus, the combination of *Filsfils* and *Guichard* also fails to teach at least the limitations of amended claim 1 as discussed above.

For the above reasons, Applicant respectfully traverses the obviousness rejection of amended claim 1.

The Examiner rejected claims 2-4 under 35 U.S.C. § 103(a) as being unpatentable over *Filsfils* in view of *Guichard*. Applicant respectfully submits that claims 2-4 are allowable at least due to their dependence from claim 1.

Amended claim 11, although of different scope, includes the limitations similar to the aforementioned limitations in amended claim 1, which are not taught or suggested by *Filsfils* and *Guichard*, considered alone or in combination. Therefore, amended claim 11 is patentably

distinguished from *Filsfils* in view of *Guichard* for at least the same reasons.

The Examiner rejected claims 5-10 and 12-17 under 35 U.S.C. § 103(a) as being unpatentable over *Filsfils* in view of *Guichard* and further in view of US Patent No. 7,343,423 B2 ("*Gouge*") .

Claims 5-10 and 12-17 ultimately depend from claim 1. *Gouge* discloses "[a] Fast Reroute implementation where switchover time to backup tunnels upon failure of a protected network element is independent of a number of entries corresponding to forwarding equivalence classes forwarding over LSPs using that element" (see *Gouge*, Abstract). Upon failure of a link or node, the appropriate entries in a forwarding table are rewritten to implement the switchover to preconfigured backup tunnels (see *Gouge*, col.2, lines 21-23). *Gouge* fails to cure the deficiencies of *Filsfils* and *Guichard* as discussed above with respect to claim 1. Therefore, claim 1 is patentable over *Filsfils* in view of *Guichard* and further in view of *Gouge*, and claims 5-10 and 12-17 are patentable over the applied references at least due to their dependence from claim 1.

Conclusion

In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: March 10, 2010

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